

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for transporting images from a single video display to both eyes of a user, said method comprising:

focusing an image of said display to reduce a ~~splitting~~ volume of space needed for splitting said image; and

splitting said image in said reduced ~~splitting~~ volume.

2. (Original) The method of claim 1 wherein a lens focuses said image of said display.

3. (Original) The method of claim 2 wherein said lens is made of glass.

4. (Original) The method of claim 2 wherein said lens is proximate to said display.

5. (Currently Amended) A head mounted device for transporting images of a single video display to both eyes of a user, said device comprising:

optics for ~~focusing~~ reducing a size of said an image of said display to a reduced ~~splitting~~ volume of space; and

means for splitting said ^{reduced-size} ~~focused~~ image, wherein said splitting means is arranged within said reduced volume.

6. (Original) The device of claim 5 wherein said optics is a lens.

7. (Original) The device of claim 5 wherein said splitting means comprises a partially reflective surface and a fully reflective surface.

8. (Original) The device of claim 5 wherein said splitting means comprises: a first fully reflective surface and a second fully reflective surface arranged as a symmetric V mirror.

9. (Currently Amended) The device of claim 5 wherein said optics ~~are~~ is a lens in proximity to said display.

10. (Original) The device of claim 9 wherein said lens is arranged to collimate light illuminating said display.

11. (Currently Amended) A method of channeling a displayed image, said method comprising:
projecting said displayed image along an optical path;
positioning a lens to focus the displayed image to a point on the optical path; and
splitting the displayed image, proximate to said point, into a plurality of sub-images, each sub-image following one of a plurality of optical sub-paths.

12. (Original) The method of claim 11 wherein said point is the focal point of said lens.

13. (Currently Amended) The method of claim 11 further comprising:
positioning at least one reflector along the optical path whereby the distance between said display lens and said point is reduced.

14. (Currently Amended) The method of claim 11 further comprising:
splitting the displayed image with a plurality of reflective surfaces arranged about a display axis.

15. (Original) The method of claim 14 wherein a rotation of said reflective surfaces may be used to adjust for an inter pupillar distance.

16. (Original) The method of claim 11 further comprising:
forming a real image on a diffuser along at least one of the plurality of optical sub-paths.

17. (Original) The method of claim 16 wherein a movement of said diffuser may be used to adjust for an inter pupillar distance.

18. (Original) The method of claim 11 further comprising:
redirecting the optical sub-path with a first reflector along at least one of the plurality of optical sub-paths.

50. (Currently Amended) A head mounted, said head mounted display comprising:

a display screen operable to produce an image along an optical path;
display optics, proximate to said display screen, wherein said optics focus said image to a point;

a splitter, located proximate to said point, for splitting the display image into a plurality of display sub-images, each sub-image traveling along one of a plurality of optical sub-paths; and

a first reflector arranged along at least one of the plurality of optical sub-paths.

51. (Original) The head mounted display of claim 50 further comprising:

a diffuser interposed between the reflector and eye optics.

52. (Original) The head mounted display of claim 50 wherein said reflector is moveable.

53. (Original) The head mounted display of claim 50 further comprising:

a second reflector arranged along said at least one of the plurality of optical sub-paths to redirect the at least one of the plurality of the optical sub-paths.

54. (Original) The head mounted display of claim 53 wherein the second reflector is rotatable about an axis common to the first and second reflectors and wherein said rotation can adjust for a user's interpupillary distance.

55. (Currently Amended) A system for channeling a displayed image, said system comprising:

a display operable to produce ~~[[a]]~~ said displayed image along an optical path;

display optics proximate to the display, said display optics having a focal point;

a broad-band source projecting radiation onto said display; and

^{displayed}
~~display~~ a splitter located proximate to the focal point, said splitter operable for splitting the image into a plurality of display sub-images, each sub-image traveling along one of a plurality of optical sub-paths.

56. (Currently Amended) The system of claim 55 wherein the broad-band ~~projector~~ source is comprised of a plurality of narrow-band sources arranged to simulate a single broad-band source ~~projector~~.

57. (Currently Amended) The system of claim 55 wherein said broad band source comprises:

a first and a second filter;

a first, a second, and a third narrow-band projectors;

wherein said first narrow-band projector is positioned to project radiation through said first filtering ~~means~~ and along a common source path;

wherein said second narrow-band projector is positioned to project radiation onto said first filter, and wherein said first filter is positioned to reflect said radiation from said second narrow-band projector through said second filtering ~~means~~ and onto said common source path; and

wherein said third narrow-band projector is positioned to project radiation onto said second filtering ~~means~~, and said second filter is positioned to reflect radiation from said third projector onto said common source path.

58. (Currently Amended) The system of claim 57 wherein each of said first, second, and third narrow-band projectors project ~~visible~~ light of wavelengths corresponding to one of red, green, or blue.

59. (Currently Amended) A system for channeling a displayed image, said system comprising:

a sub-image creation section wherein an image of a display is focused and used to generate at least two sub-images, each directed along one of two sub-paths;

at least one eyepiece section interposed along each of said sub-paths; and

wherein said sub-image creation section and said eyepiece section adjust for interpupillary distance via synchronized movements.

60. (Original) The system of claim 59 wherein said synchronized movements maintain a constant length for each sub-path.